R E M A R K S

Careful review and examination of the subject application are noted and appreciated.

SUPPORT FOR THE CLAIM AMENDMENTS

Support for the claim amendments can be found in the specification, for example, on page 5 line 20 thru page 6 line 5 and FIG. 1 as originally filed. Thus, no new matter has been added.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

The rejection of claims 1, 5, 8-11, 15 and 18-20 under 35 U.S.C. §103(a) as being unpatentable over Schmitz '871 in view of Freeman et al. '505 (hereafter Freeman) has been obviated in part by appropriate amendment and is respectfully traversed in part and thus should be withdrawn.

The rejection of claims 2-4, 6, 7, 12-14 and 16-17 under 35 U.S.C. §103(a) as being unpatentable over Schmitz and Freeman in view of Schultz et al. '848 (hereafter Schultz) is respectfully traversed and should be withdrawn.

Schmitz concerns an apparatus and method for allocation of resources in programmable logic devices (Title). Freeman concerns a programmable error-checking matrix for digital communication system (Title). Schultz concerns a method and

structure for reading, modifying and writing selected configuration memory cells of an FPGA (Title).

In contrast, claim 1 provides (in part) a step of storing at least one of a plurality of parameters, that define a program for a programmable logic device, in a non-programming field of a file suitable for programming the programmable logic device. Despite the assertion on page 5 of the Office Action, column 6, lines 44-67 and column 7, lines 23-32 of Freeman appear to be silent regarding storing parameters in a non-programming field of a file suitable for programming a PAL (asserted similar to the claimed programmable logic device) of Schmitz. The text of Freeman cited in the Office Action reads:

> writing an error checking signal to a unique storage location in a group of NxM storage locations for each one of a set of the MxN possible pairs to said first and second data field values where said group of storage locations is divided into M first data field sets of storage locations, each first data field set including N storage locations with each storage location included in only one first data field set, with each written error checking signal having either a first check value indicating that the possible pair is allowed by the communication protocol or having a second check value indicating that the possible pair is forbidden by the communication protocol;
>
> receiving a given pair of said first and second data fields transmitted on said channel during a particular communication operation;
>
> decoding a received first data field to obtain a first data field value;
>
> utilizing only said first data field value to select a unique one of first data field sets;
>
> . . .

a first non-programmable matrix decoder, having row and
column inputs for receiving first and second fields
respectively and an output for transmitting an unmasked error
checking signal selected by said first and second fields
received at said inputs, with said error checking signal
having either a first check value if the first and second
fields are not allowed by the particular hardware
configuration and communication protocol or a second check
value if the first and second data fields are allowed;

Nowhere in the above text, or in any other section, does Freeman

appear to discuss storing **a parameter** that define a program for a

programmable logic device **in a non-programming field** of **a file**

suitable for programming the programmable logic device.   No

"parameter" for programming a programmable logic device appear to

be mentioned by Freeman.   The only "fields" Freeman mentions appear

to be part of a communication protocol per column 6, lines 34-36,

not part of a file suitable for programming a programmable logic

device.   The only "non-programming" item mentioned by Freeman

appears to be a matrix decoder per column 7, line 23, not a field

of a file.   Furthermore, no file suitable for programming a

programmable logic device appears to be mentioned by Freeman.

Therefore, Schmitz and Freeman, alone or in combination, do not

teach or suggest a step of storing at least one of a plurality of

parameters, that define a program for a programmable logic device,

in a non-programming field of a file suitable for programming the

programmable logic device as presently claimed.   The Examiner is

respectfully requested to either (i) clearly and concisely identify

the wording in Freeman asserted similar to (a) the parameter, (b)

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the non-programming field and (c) the file or (ii) withdraw the rejection.

Furthermore, MPEP §2124 requires "some suggestion or motivation, either in the references or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references". However, the asserted motivation on page 5 of the Office Action "that the error checking signal is used to check whether the data fields generated during a particular communication are allowed or forbidden by a communication protocol" do not appear to be from Schmitz or Freeman, and no assertion is made that the alleged motivation is from knowledge generally available to one of ordinary skill in the art. Therefore, the requirement under MPEP §2124 for motivation has not been fulfilled and thus *prima facie* obviousness has not been established. As such, the Examiner is respectfully requested to either (i) provide a copy of the source for the alleged motivation or (ii) withdraw the rejection.

Furthermore, MPEP §2124 requires evidence of a reasonable expectation of success to establish *prima facie* obviousness. The Office Action appears to be silent regarding any expectation of success. As such, *prima facie* obviousness has not been established. Therefore, the Examiner is respectfully requested to either (i) provide evidence of a reasonable expectation of success for the proposed combination or (ii) withdraw the rejection.

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Furthermore, the references appear to be non-analogous art. Schmitz has a primary U.S. classification of 364/490. Freeman has a primary U.S. classification of 371/57.1. However, no evidence or explanation is provided in the Office Action that Freeman is either (i) within the Applicants' field of endeavor or (ii) reasonably pertinent to the particular problem with which the Applicants' were concerned (MPEP §2141.01(a)). Due to a lack of evidence to the contrary, the U.S. Patent and Trademark Office classifications appear to show that the references are non-analogous art and thus the proposed combination is not obvious. As such, the Examiner is respectfully requested to either (i) provide evidence and an explanation why one of ordinary skill in the art in the Applicants' field or working on Applicants' problem would be aware of Freeman or (ii) withdraw the rejection. Claims 11 and 20 provide language similar to claim 1. As such, the claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

Claim 11 further provides a structure comprising a medium and a computer program. In contrast, each of Schmitz and Freeman appear to be silent regarding a computer program in a medium defining the claimed steps. The assertion on page 3 of the Office Action that Schmitz discusses a physical database storing information characterizing a programmable logic device fails to address the steps of a computer program that generates a file

suitable for programming the programmable logic device. Therefore, the Examiner is respectfully requested to either (i) provide clear and concise evidence where Schmitz and/or Freeman (Schultz is not part of the rejection for claim 11) discuss a computer program or (ii) withdraw the rejection for claim 11.

Claim 20 further provides a structure comprising a means for generating, a first means for storing and a second means for storing. In contrast, each of Schmitz and Freeman appear to be silent regarding a structure comprising a means for generating, a first means for storing and a second means for storing as presently claimed. Furthermore, the assertion on page 7 of the Office Action that claim 20 is rejected for the same reasons as claim 1 fails to address the structure unique to claim 20. Therefore, the Examiner is respectfully requested to either (i) provide clear and concise references where the rejection for claim 1 discusses the structure of claim 20 or (ii) withdraw the rejection for claim 20.

Claim 5 provides steps for (i)(from claim 1) storing at least one of a plurality of parameters that define a program for a programmable logic device in a non-programming field of a file and (ii)(from claim 5) storing an error detection item in a second non-programming field of the file. In contrast, the Office Action cites (i) the same text of Freeman as discussing both a first non-programming field and a second non-programming field and (ii) the same "error checking signal" of Freeman as both the claimed at

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least one parameter and the claimed error checking item. The text of Freeman cited by the Office Action is reproduced above within the arguments for claim 1. As noted in the arguments for claim 1, the cited text of Freeman does not appear to mention (a) a parameter that defines a program for a programmable logic device, (b) a non-programming field in a file or (c) a file suitable for programming the programmable logic device. Furthermore, the Office Action does not clearly identify (i) a second non-programming field within a file suitable for programming a programmable logic device and (ii) a parameter other than the error checking signal of Freeman. Claim 15 provides language similar to claim 5. Therefore, the Examiner is respectfully requested to either (i) clearly identify where Schmitz and/or Freeman teaches (a) two non-programmable fields in (b) a file suitable for programming a programmable logic device and (c) both a parameter and an error checking item or (ii) withdraw the rejections to claims 5 and 15.

Claim 8 provides a step of storing an identification item configured to identify a programmable logic device in a second non-programming field of a file. Despite the assertion on page 6 of the Office Action, the text in column 2, lines 44-57 of Schmitz appears to be silent regarding storing an identification item in a second non-programmable field. The cited text of Schmitz reads:

Design input file 20 contains information describing the circuit to be implemented on the programmable logic device. The information in the design input file varies with the design software used, but one skilled in the art know the

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required information for the design input file. For example, for PALASM 2 software, a first design input file is used for Boolean equation design and another design input file is used for state machine design.

For Boolean equation design, the design input file for the PALASM 2 software contains two segments, a declaration segment and an equations segment. The declaration segment contains design identification, device and pin data, and optionally string substitutions.

Nowhere in the above text, on in any other section, does Schmitz appear to discuss a second non-programming field in a file. Furthermore, page 5 the Office Action states, "Schmitz does not explicitly disclose non-programming field." Therefore, Schmitz and Freeman, alone or in combination, do not teach or suggest a step of storing an identification item configured to identify a programmable logic device in a second non-programming field of a file as presently claimed. Claim 18 provides language similar to claim 8. As such, claims 8 and 18 are fully patentable over the cited references and the rejection should be withdrawn.

Claim 9 provides a step of bracketing a non-programming field of a file with a pair of delimiters. Despite the assertion on page 6 of the Office Action, FIG. 26 and the text in column 18, lines 26-31 of Schmitz appear to bracket comments in a **programming field** of a JEDEC file, not a **non-programming field** of a file. The cited text in column 30, lines 9-13 of Schmitz appear to discuss brackets in **a product database (PDB) 121** for chip physical resources of the PLD, not **a non-programming field** of a file. Furthermore, page 6 of the Office Action state, "Schmitz does not

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explicitly teach non-programmable field." Therefore, Schmitz and Freeman, alone or in combination, do not teach or suggest a step of bracketing a non-programming field of a file with a pair of delimiters as presently claimed. Claim 19 provides language similar to claim 9. As such, claims 9 and 19 are fully patentable over the cited reference and the rejection should be withdrawn.

Claim 10 provides steps for (i)(from claim 1) storing at least one of a plurality of parameters that define a program for a programmable logic device in a non-programming field of a file, (ii)(from claim 10) storing an error detection item in a second non-programmable field of a file and (iii)(from claim 10) storing another parameter in a third non-programming field of the file. In contrast, the Office Action cites (i) column 6, lines 44-57 of Freeman for both the claimed first non-programming field and the claimed second non-programming field and (ii) column 7, lines 23-25 and column 8, lines 22-25 of Freeman for both the claimed first non-programming field and the claimed third non-programming field. The cited text of Freeman in columns 6 and 7 are reproduced above within the arguments for claim 1. As noted in the arguments for claims 1 and 5, the cited text of Freeman fails to mention (a) a parameter, (b) a first non-programming field, (c) a second non-programming field and (d) a file suitable for programming a programmable logic device. Furthermore, the cited text in column 8 of Freeman reads:

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second matrix decoder, having row and column inputs for receiving said first-data field and a third data field respectively and an output for transmitting an unmasked error checking signal selected by said first and third fields received at said inputs, with said error checking signal having either said first check value if the first and third fields are · not allowed by the particular hardware configuration and communication protocol said second check value if said first and third data fields are allowed.

Nowhere in the above text, or in any other section, does Freeman appear to discuss (a) another parameter of a program for a programmable logic device, (b) a second non-programmable field of a file and (c) a file suitable for programming the programmable logic device. Therefore, the Examiner is respectfully requested to either (i) clearly identify where Freeman discusses (a) the two parameters and (b) three non-programming fields or (ii) withdraw the rejection.

Claim 10 further provides a step of bracketing a combination of four non-programming fields with a pair of delimiters. Despite the assertion on page 6 of the Office Action, the text in column 3, lines 42-46 of Freeman appears to be silent regarding bracketing non-programming fields of a file. The cited text of Freeman reads:

If M is an m-bit data field and N is an n-bit data field then the data fields may encode up to 2^m and 2^n values respectively. The symbols M and N in the above equation represent pairings of the values of a particular pair of M and N fields.

Nowhere in the above text, on in any other section, does Freeman appear to discuss bracketing non-programming fields. As such, the

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Examiner is respectfully requested to either (i) explain how encoding up to 2^m and 2^n values would be considered similar to bracketing four non-programming fields of a file or (ii) withdrawn the rejection.

Furthermore, MPEP §2124 requires a suggestion or motivation from either the references or knowledge generally available to one of ordinary skill in the art for the proposed combination. In contrast, the alleged motivation on page 7 of the Office Action "that the bracketing specifies the required fields for processing" does not appear to be from Schmitz or Freeman, and no assertion is made that the alleged motivation is generally known to one of ordinary skill in the art. As such, *prima facie* has not been established. Therefore, the Examiner is respectfully requested to either (i) provide a copy of the source of the alleged motivation or (ii) withdraw the rejection.

Furthermore, MPEP §2124 requires evidence of a reasonable expectation of success to establish *prima facie* obviousness. The Office Action appears to be silent regarding any expectation of success. As such, *prima facie* obviousness has not been established. Therefore, the Examiner is respectfully requested to either (i) provide evidence of a reasonable expectation of success for the proposed combination or (ii) withdraw the rejection.

Claim 2 provides a step of storing a frequency parameter in a non-programming field of a file. In contrast, column 20,

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lines 36-67 and column 21, lines 1-6 of Schultz (cited on page 8 of the Office Action) appear to concern writing a configuration clock frequency to **a command register** 420, not **a non-programming field** of a file. Therefore, Schmitz, Freeman and Schultz, alone or in combination, do not appear to teach or suggest a step of storing a frequency parameter in a non-programming field of a file as presently claimed. Claim 12 provides language similar to claim 2. The Examiner is respectfully requested to either (i) provide a clear and concise explanation of the language in Schultz that is asserted similar to the claimed non-programming field of a file suitable for programming a programmable logic device or (ii) withdrawn the rejections to claims 2 and 12.

Claim 3 provides steps for (i)(from claim 1) storing at least one of a plurality of parameters that define a program for a programmable logic device in a non-programming field of a file and (ii)(from claim 3) storing a second of the parameters in a second non-programming field of the file. The Office Action cites column 7, lines 23-32 of Freeman as teaching both claimed parameters and both claimed non-programming fields. The cited text of Freeman is reproduces above within the arguments for claim 1. As argued for claims 1 and 5, the cited text of Freeman appears to be silent regarding (a) a first parameter and (b) two non-programming fields. Furthermore, no clear evidence is provided in the Office Action that the same cited text of Freeman teaches two parameters.

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Therefore, Schultz, Freeman and Schmitz, alone or in combination, do not appear to teach or suggest steps for (i) storing at least one of a plurality of parameters that define a program for a programmable logic device in a non-programming field of a file and (ii) storing a second of the parameters in a second non-programming field of the file as presently claimed. Claim 13 provides language similar to claim 3. The Examiner is respectfully requested to either (i) clearly identify the language in Freeman allegedly similar to (a) two parameters stored in (b) two non-programming fields or (ii) withdraw the rejections for claims 3 and 13.

Claim 4 provides a frequency parameter stored in a second non-programming field of a file suitable for programming a programmable logic device. Despite the assertion on page 8 of the Office Action, the text in column 21, lines 2-6 of Schultz appears to be silent regarding a non-programmable field. The cited text of Schultz reads:

> For example, because the configuration clock frequency is stored by configuration options register 430 and initiated by a command executed in command register 420, the order of these steps in bit stream 900 is determined by configuration circuit 122.

Nowhere in the above text, or in any other section, does Schultz appear to discuss non-programming fields of a file suitable for programming a programmable logic device. Therefore, Schmitz, Freeman and Schultz, alone or in combination, do not teach or suggest a frequency parameter stored in a second non-programming

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field of a file suitable for programming a programmable logic device as presently claimed. Claim 14 provides language similar to claim 4. As such, claims 4 and 14 are fully patentable over the cited references and the rejection should be withdrawn.

INCOMPLETE OFFICE ACTION

Applicants' representative respectfully requests that the next communication be presented in <u>non-final</u> form due to a lack of proper development for the present rejections. In particular, Applicants' representative traversed the assertions in the September 15, 2003 Office Action regarding the teachings of Schmitz relative to claims 9 and 19, Schultz relative to claims 4 and 14 and the lack of evidence for the structure in claim 20. MPEP §707.07(f) reads:

> Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and **answer the substance** of it. (Emphasis added)

The current Office Action repeats the rejections for claims 9, 19, 4, 14 and 20 but does not answer the substance of the traverse as presented in the December 15, 2003 Amendment. Therefore, the current Office Action is incomplete and the next communication should be either a non-final rejection or a notice of allowance.
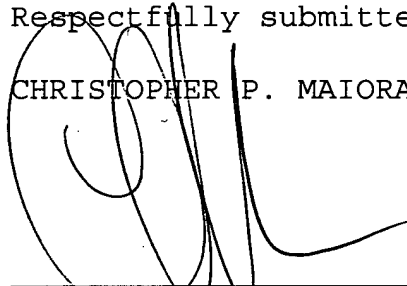
Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicants' representative should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge our office Account No. 50-0541.

Respectfully submitted,

CHRISTOPHER P. MAIORANA, P.C.

Christopher P. Maiorana
Registration No. 42,829
24840 Harper Avenue, Suite 100
St. Clair Shores, MI 48080
(586) 498-0670

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